"Citation Analysis of Ph.D. Theses Awarded in Social Work by Tata Institute of Social Sciences, Mumbai : A study."

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Synopsis

Introduction :

The pursuit of scientific knowledge by humans has been an age-old phenomenon. The scientific discoveries and understanding has always been based on previous work and in a way the present knowledge pool of human race is indebted with countless research scholars and scientists who have been engaged in furthering the knowledge through their studies and discoveries (Ziman, 1968). The knowledge pool is documented in various formats ranging from books, journals, web pages, news articles, dissertation, reports, encyclopedias etc. The main idea behind publishing and documenting the research is that others could refer them and critique or further develop the ideas through their experiment, knowledge or experience. In the contemporary information driven society, publishing knowledge is an integral part of research process (Robles, 2009). Modern scientific papers are not stand-alone exercise and it acknowledges the academic in-debtness through references. Narin (1976) defines the relation between reference and citations as *a reference is the acknowledgement that one document gives to another, and a citation is the acknowledgement that one document receives from another*. With a rise in formal ways of citing the relevant piece of previous research, a whole new discipline of bibliometrics has been developed in the field of library and information and science (LIS).

The most common technique to analyse academic literature is known as *Bibilometrics* (Pritchard, 1969). The field of library and information science widely use the techniques of Bibliometrics to up with great insights pertaining to citation and content analysis of academic literature. Bibliometrics is defined as *statistical analysis of books, articles or other publications where there is use of data pertaining to numbers and authors of scientific publications and it essentially measure the output of individual or research teams, institutions and countries* (OECD[1], 2002). Citation analysis is a field in *Library and Information Science* (LIS) that analyses various aspects pertaining to citation or bibliography. The citation or bibliography is a list of references and usually consist of (though not limited to) books or a set of journals. By analyzing who are being cited and how many times, the citation analysis tool becomes a pre-requisite for deciding the impact factors of journal.

Review of Literature:

Kumar & Senthilkumar (2019), the applicability of Lotka's law in AARI for the known information put. Data was recovered from the WoS database for this learning, a total of 6,363 papers has been published by 2,719 authors period 2013 to 2017 indirectly calculate of the authorship.

Aksnes, Langfeldt and Wouters (2019) Citations, Citation Indicators, and Research Quality are ever more utilized as presentation pointers in research strategy and within the research structure. Frequently, citations are unspecified to reproduce the crash of the research or its superiority. On the different, there is no proof that citations reflect other key scope of research quality. Citations replicate features connected to technical force and significance, although with significant limits. therefore, an improved utilize of citation pointers in research assessment and support may involve fewer awareness to these additional research quality scope, such as hardness, novelty, and community assessment.

Statement of the Problem :

TISS social work research encompasses a wide variety of social issues that ranges from gender and women studies, labour and human resource management, developmental studies, dalit and tribal studies, counseling, teaching, health system studies, rural development, corporate social responsibility, public policy and governance, habitat and urban studies, disaster management studies etc. Given this wide range of studies, it is still unknown that what broad topics have formed as a research interest area for doing a PhD in the field of social work. It is still unknown that what kind of research material (related to books, journals, news items etc.) are referred by the TISS PhD scholars to frame their theoretical arguments and how do these journals or books fare up in the international ranking factors (e.g. impact factor of journals). Such kind of knowledge could reveal the principle types of literature referred for research in social work and determine whether the broad research ideas are shaped by Indian or international scholars in the particular discipline.

Objectives of the Study :

Considering the abovementioned knowledge gaps and problem statement, the study propose to address them by studying the citation analysis pattern of TISS Ph.D scholars in the field of social work.

This study has following objectives :

- To determine the principal forms of literature used in dissertations by TISS doctoral students. (Item Types)
- To prepare a ranked list of periodicals based on frequency of use by the doctoral students. (journal title)
- To determine country-wise distribution of literature used by doctoral students. (place)
- To determine the age distribution of literature used by doctoral students. (year)
- To study authorship patterns in citations. (author 1-all)
- To determine subject-wise distribution of doctoral thesis submitted by TISS. (school)
- To determine publisher-wise distribution of citations. (publisher wise)
- To determine the degree of collaboration among the contributors. (authors1-many)

Hypotheses :

Considering the objectives of the study, 3 key research hypotheses have been formulated to facilitate further research. The present study is intended to test the following hypotheses on the objectives enumerated in the previous section. The key hypotheses along with their appropriateness to serve as precursor for research have been summarized below:-

- Ph.D students prefer periodical (journals) literature (through online resources) as a key source of research information.
- Ph.D students give less importance to non-research based (or informal) forms of literature.
- Ph.D students prefer journals published in developed countries.
- Journal literature would be the most important source of information for researchers in social work.
- The literature of social work would be scattered over a wide range of subjects.
- The literature of social work would be mainly published by developed countries.
- Multi-authored collaborative papers would be high in journal literature in social work.
- The practice of self-citation would be a common phenomenon among researchers in social work.
- The usage pattern of journals by researchers in social work would conform to the Bradford's Law of Scattering.
- Researchers in social work would use current literature in pursuing their research.

- Ph.D theses awarded in social work by Tata Institute of Social Sciences, Mumbai would be cited heavily by researchers in social work studies
- Single-authors would be high in general books and periodicals literature in social work studies.

Methodology, tools for data collection and analysis :

The sample universe of the Ph.D theses will be Ph.D awarded by Tata Institute of Social Sciences (TISS), Mumbai in the field of social work in the time frame of 1975 to 2018, which turns out to be 150 in number. The methodology of data collection incorporates elements of secondary data collection. The secondary data collection source will be from TISS library, where the entire Ph.D theses have been kept both in soft copy and hard copy format. The researcher has sought all the necessary permission from TISS authority to access the Ph.D theses and get all the citations downloaded. The researcher will make an exhaustive database of Ph.D citations and compile it in an excel sheet in a suitable format. The citation pattern will be analysed using either excel of SPSS (Statistical Software Package in Social Sciences) and come up with the citation analysis data and detect the similarities and differences in the citation pattern among the TISS Ph.D candidates. Table 1 shows the classification table on the forms of publications that are used by TISS Ph.D candidates in the Social Work department.

Primary data :

This is an innovative approach by the researcher where the current Ph.D scholars of TISS will be approached for semi-structured interview questions on how they search and cite the relevant literature in their thesis. Having an interaction with Ph.D scholars will give a concrete idea on choice and preferences of the current Ph.D scholars, who have a great ease in accessing most of the relevant literature through e-resources. Once the semi structured interviews are done, the researcher will resort to undertake a survey of the Ph.D candidates (both current and pass outs) to understand the type of resources they use or prefer to use for finding and citing the relevant literature. The author will use multiple mode of approach by circulating the questionnaire in the form of soft copy (online survey) and through getting the hard copies filled. For Ph.D candidates who have attained their degree or residing outside the campus, they will be approached for a telephonic or Skype interaction. Additional data on citation pattern of TISS Ph.D research scholar will be captured through interaction with the faculty members who are

engaged in guiding the Ph.D scholars. This will give a comprehensive account of how things have been changed in TISS citation pattern over a period of time.

Secondary Data Analysis :

The secondary data generated from the TISS theses will be classified into the parameters of authorship (single or multiple author), journal ranking, geographical location of authors and the format of citation that has been used. These four parameters have capacity to reveal the exact nature of Ph.D work which most of the research scholar do in TISS. By seeing the geographical affiliation of the authors they cite, the research would be able to analyse if the bulk of theoretical ideas and ground work have been influenced by western authors or are there is equal dominance of Indian scholars being mentioned in their literature. By checking which journal category does most scholars of TISS refer to and analyzing their ranking as well as citation index, we can see a clear cut pattern of kind of journals used on the campus. This will give the librarian a key insight on the effectiveness of their E-resources that has been subscribed as a low number of reference to journal (especially high ranking) might indicate that the e-resources has not been used effectively. Also the analysis will see if there is a gradual change in the citation pattern based on the style of referencing (e.g. A change from Chicago style to APA or some other pattern). A discussion with TISS faculty who are engaged in guiding Ph.D student will add to the discussion of merits of a particular format that has been used predominantly by the TISS scholars.

Scope and Limitations of the Study :

The present study will cover review of doctoral dissertations awarded by TISS, Mumbai in the field of Social Work only and do not incorporate other social work institutes of India. The M.Phil research scholars of TISS, also forms a substantial number in terms of research output of TISS. However, the scope of present research will not incorporate the analysis of M.Phil scholars work. The prime reason for excluding M.Phil scholars from the study is that most of the M.Phil research scholars continue doing Ph.D in TISS itself and continue with similar research topics, that they had undertaken during M.Phil course.

Research Analysis:

Govinda Raju (2014) studied 30691 Citations cited in 163 thesis in Physics submitted to Andhra University of the period 1942-2002. The results showed that the researchers of Physics referred mostly journals as a source of information rather than other sources. Journals were considered as primary and authenticate source of information. The distribution of cited journals clearly indicated that a small number of journals contributing towards maximum number of citations.

Somashekara and Kumbar, M (2014) Studied 2485 Citations the research performance of Physics Department, Bangalore University, Karnataka. The study showed that the major part of the citation was Journal citations which accounted for 80.68% followed by books 10.99% and E-resources 1.21%. The collaborative authorship was highest with 72.39%. The Physics researchers cited maximum during the period 1991-2000 (28.89%) and the citation publication of journal articles was maximum by USA 42.34% (849), UK 13.87% (278) and India 8.13% (163).

It is against this background that the citation analysis study was employed in studying the dissertations of social science students of *Tata Institute of Social Sciences (TISS), Mumbai.* TISS, a premier social science research institute was established in 1936. The following research questions guided the study:-

- Which citation formats are widely used in the dissertations submitted to department of social work and development studies?
- How old are the citations quoted in the dissertations?
- Which are the frequently cited journals?
- What kind of trend was observed from 2000-2007?
- Which subject within the framework of social work and development studies have the highest number of dissertations?
- To what extent have journals been used?
- What is the impact of internet on the dissertations?
- Is there any pattern emerging from the dissertations?
- Is there any diversion observed in the dissertation from the core area of research?

According to the research undertaken at TISS, Mumbai campus, the following was observed, a further analysis revealed the following information, the increase in the citations could be

attributed to the increased access to journals and academic literature as well as digitization of the existing literature.

Data Collection and Analysis:

The research was of descriptive in nature. The major sources of data used were dissertations of masters students from the department of development economics and social work along with the database of dissertations in the respective departments. The sampling procedure for the study was purposive mainly because the data used was from the period 1975 to 2018. A total of 151 dissertations were analyzed.

All the dissertations were manually examined and the citations were taken from the bibliography mentioned at the end of each dissertation. The method adopted for data collection was document extraction through content analyses. The data extracted included the following information:-

- Year of Publication
- Oldest Material Cited
- Title of Project Work
- Types of Journals Cited
- Years of Cited Journals

The citations were further segregated as follows:-

- Journals
- Books
- Conference Papers
- Thesis
- Web/Online Sources
- Government Data

The data obtained was analyzed by entering them into MS excel sheets. Charts, graphs, mean, median, mode and frequency distribution tables were gathered from excel sheets. Based on the analysis, the following is a list of 20 most quoted journals in various dissertations, top twenty core journals in master's dissertation.

From the above tables, it is very evident that the most cited items were Journals totalling at 6875, 59% of the total data used. The least used source of information was thesis which numbered at 327 and in percentage terms was around 3% of the cumulative information used to submit this paper.

Scheme of the Proposed Work (Proposed Chapterisation) :

Chapter 1: Introduction

This chapter will introduce the basic ideas of citation analysis and bibliometrics use in Library and Information Science. This chapter will also highlight the key progress in citation analysis both from the viewpoint of Indian and international research on the topic. This chapter will also incorporate the key research questions, methods and objectives of the study.

Chapter 2: Literature Review

This chapter will give a comprehensive account of the key literature that provides the analytical framework for the present study. It will outline the key authors and researchers in the field of bibliometric and LIS and provide with details on how their work contributed in advancement of the field. The literature review chapter will provide key concepts that will be referred throughout the empirical part of the thesis.

Chapter 3: Methodology

This chapter will provide an elaborate account of the method used in the present study. It will describe in details the tools used for data analysis and will justify the use of these tools in the present research. The method chapter will also identify the key limitations of the study and will provide details on the data collection, data entry and data analysis process.

Chapter 4: Data Analysis and presentation

This chapter will provide an in-depth analysis of the data collected from the thesis submitted to TISS, Mumbai. It will tabulate the findings on various parameters such as materials used (books, journals, conference proceeding, website etc.). It will also do further analysis of data on lines of authorship pattern, country of origin, publisher reputation, journal impact factor and chronological details of the literature cited.

Chapter 5: Findings, recommendations and conclusions

Based on the data analysis, this chapter will elaborate the key findings of the thesis. It will also provide recommendations that could be used by the TISS library to further enhance their database, which is used most for reference. It will also make general conclusion on the research pattern, topic and most influential scholars in the field of social work that shape the ideas of TISS scholars.

Conclusion:

Citation analysis have been used by the researchers of Library and Information Science as a tool to determine not only the impact of literature in a field of study but also to analyse research activity in a particular field of study and this analysis is cross-disciplinary and beyond the geographic boundaries. It is a bibliomretric technique that uses the citation patterns in document to trace the relationship between those documents with their original sources and authors. It helps in identifying the core journals, key scientists, highly preferred source of information of the researchers etc. Apart from this citation indexes are used to search the relevant documents. This is an applied research method used mainly by the librarians, teachers and information scientists. Recent developments of this technique reflect a constant growing trend. It also helped me to identify the materials that have to be studied and what result should be anticipated so that I can evaluate the probable benefits which would make the work more relevant.

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